

CONSTRUCTION VALUE ENGINEERING CONCEPT PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Contract ID 071130-901 Job No. J9L0700L
County Reynolds Route 34 Original Bid Cost \$1,776,501.34
Contractor APAC-Missouri, Inc. By Phillip Raines
Designed By MoDOT Phone (573) 449-0886

Date 04/10/2008

VE # 08-23

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Existing plans show construction of a 4' shoulder

Proposed change would construct a 3' shoulder

Proposed change would add 2" of Bituminous Base to the shoulders in lieu of 4" of Type 1 Aggregate

See attached spreadsheet

2. Estimate of reduction in construction costs. \$297,374.54

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

The increase in bituminous base on the shoulders will provide a more stable shoulder; therefore, problems with maintaining the integrity of the planned shoulder will be less.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

04/18/2008

(date)

Earthwork template will need to be adjusted

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

(date and/or dates)

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APR 21 2008

Additional Comments:

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

MoDOT POLICY REQUIRES A 4 FOOT SHOULDER (MINIMUM)
BE INSTALLED WHEN REHABILITATING RURAL MAJOR ROUTES.
ROUTE 34 IS ON THE NHS SYSTEM.

Audie Pulliam

AUDIE A. PULLIAM

Submitted By Resident Engineer

4/11/08

Date

Comments:

☐ Approval
Recommended

☒ Rejection
Recommended

Tom Steph

District Engineer

4/18/08

Date

Comments:

Agree with RE comments.

☐ Approval

☒ Rejection

David D. Coates

State Operations Engineer

BAW

4-22-08

Date

Distribution:

Resident Engineer, District Operations Engineer, State Operations Engineer

*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

Value Engineering Proposal #1

Quantities for 4' shoulders

Line No.	Item Description	Quantity	Units	Unit Price	Amount
50	Type 1 Aggregate for Base	48534.00	SY	\$3.79	\$183,943.86
60	Bit. Pavement (BP-1)	17634.10	Tons	\$43.00	\$758,266.30
70	Bit. Base (BB)	5276.60	Tons	\$43.13	\$227,579.76
50xx	Additional Dirt for Shoulders	90.00	Sta	\$2,091.90	\$188,271.00
Total=					\$1,358,060.92

Quantities for 3' shoulders

Line No.	Item Description	Quantity	Units	Unit Price	Amount
50	Type 1 Aggregate for Base	36400.50	SY	\$3.79	\$137,957.90
60	Bit. Pavement (BP-1)	13225.58	Tons	\$43.00	\$568,699.94
70	Bit. Base (BB)	3957.45	Tons	\$43.13	\$170,684.82
50xx	Additional Dirt for Shoulders	90.00	Sta	\$1,673.52	\$150,616.80
Total=					\$ 1,027,959.45

Cost to Substitute 2" of Bit. Base for 4" Type 1 Aggregate for Base

Line No.	Item Description	Quantity	Units	Unit Price	Amount
70	Bit. Base (BB)	3957.45	Tons	\$ 43.13	\$ 170,684.82
50	Type 1 Aggregate for Base	36400.50	SY	\$ 3.79	\$ 137,957.90
Total=					\$ 32,726.92

Savings due to new proposal

Total for 4' Shoulders	\$ 1,358,060.92
Total for 3' Shoulders	\$ 1,027,959.45
Total =	\$ 330,101.46

Cost to Sub. Bit Base for Aggregate \$ 32,726.92

Total Net Savings= \$ 297,374.54



"Raines Phillip"
<Phillip.Raines@apac.com>
04/10/2008 02:14 PM

To <Audie.Pulliam@modot.mo.gov>,
<robert.reed@modot.mo.gov>
cc "Stastny Jason" <Jason.Stastny@apac.com>, "Davis Josh"
<Josh.Davis@apac.com>

bcc

Subject V.E. Proposal #1

Audie,

Attached are two documents for our Value Engineering Proposal. We are proposing to modify the shoulders from 4' to 3' and substitute 2" of Bit Base for 4" of Type 1 Aggregate for Base. Our modification is based on the plans and will actually be a little more than 3' for the shoulders due to the roadway being wider than 21' along the majority of the roadway. We discussed this issue at the preconstruction meeting where we agreed to construct the shoulders based on the existing edge of pavement.

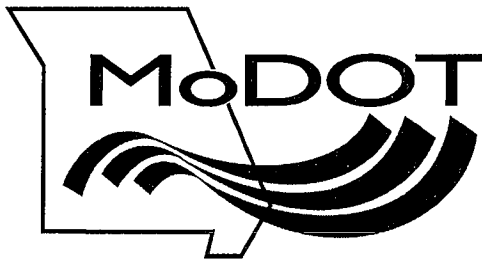
Let us know if you have any questions.

Phillip Raines, P.E.
Estimator
573-449-0886 (office)
573-289-9969 (cell)



Value Engineering Proposal #1.pdf V.E. Proposal #1.xls

*Missouri
Department
of Transportation*



Tom Stehn, District Engineer

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**TO: Dave Ahlvers
State Construction & Materials Engineer**

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**FROM: Edward Hess
Operations Engineer, D9**

APR 21 2008

DATE: April 18, 2008

Construction & Materials - ECR

**Subject: Value Engineering Proposal
Contract I.D. 071130-901
J9L0700L
Rte. 34, Reynolds Co.**

Attached please find the Value Engineering Proposal submitted by the contractor, APAC-Missouri, Inc. for the above noted project. The District Engineer, Mr. Tom Stehn, has rejected this proposal at the District Level.

Thank you, for you attention in this matter.

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☒ Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

The contractor is proposing to reduce the width of the shoulder from 4' to 3'. The savings for this would be \$330,101.47. The proposal also includes the substitution of 2" Bituminous Base in lieu of 4" Type 1 Aggregate Base at an additional cost of \$32,726.92. Therefore the total savings would \$297,374.55.

MoDOT policy requires a 4 foot shoulder (minimum) be installed when rehabilitating rural major routes. Route 34 is on the NHS system.

Therefore we reject this VE proposal.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.
